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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,282	01/14/2004	Vincent Valentino Di Luoffo	AUS920030858US1	6334
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IBM CORP (AP) C/O AMY PATTILLO P. O. BOX 161327 AUSTIN, TX 78716			EXAMINER ZHE, MENG YAO	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 08/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/757,282	<b>Applicant(s)</b> LUOFFO ET AL.	
	<b>Examiner</b> MENG YAO ZHE	<b>Art Unit</b> 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5,6 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,6 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/24/08, 1/14/04, 7/5/05, 8/25/06</u> .                       | 6) <input type="checkbox"/> Other: _____                          |



### **DETAILED ACTION**

1. Claims 1, 5, 6, 11 are presented for examination.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 6, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werme et al., Patent No. 7,171,654 (hereafter Werme) in view of Sankaranarayan et al., Patent No. 6,799,208 (hereafter Sankaranarayan) further in view of Ozzie et al., Patent No. 6,640,241 (hereafter Ozzie).

4. Sankaranarayan was cited in the previous office action.

5. As per claim 1, Werme teaches a method for maintaining application operations within a suboptimal grid environment, comprising:

enabling a grid environment comprising a plurality of computing systems each comprising at least one resource and communicatively connected over a network through a grid management system to share each said at least one resource through at least one web service layer atop at least one grid service layer implemented within an

Art Unit: 2195

open grid services architecture (Column 5, lines 33-50; Table in Column 5, section REMOS; Column 11, lines 18-22);

receiving a plurality of separate jobs from a plurality of client systems over said network at said grid management system (Column 30, lines 25-38, lines 50-53);

managing distribution from said grid management system of each of said plurality of separate jobs to a separate selection of said at least one resource (Column 4, lines 10-15);

submitting by said grid management system an application from among a plurality of applications to at least one resource node comprising at least one of said at least one resource from among a plurality of resource nodes comprising at least one of said at least one resource within said grid environment, wherein each of said plurality of separate jobs requests at least one of said plurality of applications (Column 8, lines 34-40);

monitoring by said grid management system a performance status of said at least one resource node (Column 7, lines 33-40);

comparing by said grid management system said performance status with an operational requirement specified in a profile for said application for when said application is operating at said at least one resource node (Column 7, lines 47-50; Column 8, lines 10-27);

responsive to said performance status not meeting said operational requirement, determining by said grid management system whether there is at least one other resource node from among said plurality of resource nodes within said grid environment

Art Unit: 2195

that meets said operational requirement specified in said profile for said application for when said application is operating at said at least one other resource node (Column 8, lines 23-27);

responsive to determining there is said at least one other resource node that meets said operational requirement specified in said profile, relocating by said grid management system said application to said at least one other resource node within said grid environment (Column 8, lines 23-27; Column 18, lines 35-42, lines 50-55; Column 22, lines 20-23);

responsive to determining there is not said at least one other resource node that meets said operational requirements specified in said profile, determining by said grid management system at least one module to first shutdown from among a plurality of modules of said application (Column 8, lines 4-8; Column 21, lines 30-50).

responsive to determining from said profile said at least one module to first shutdown, sending a message by said grid management system to said at least one resource node authorizing said at least one resource node to shutdown said at least one module, such that said application continues to operate with a portion of said plurality of modules when said performance status fails to meet said operational requirement in said profile (Column 21, lines 40-51: it is inherent that other copies or modules of the application continues to run after scaling down or shutting down of some copies.)

Werme does not specifically teach wherein each of said plurality of modules is assigned a separate resource size requirement and a separate priority to be shut down in said profile.

However, Sankaranarayan teaches wherein each of said plurality of modules is assigned a separate resource size requirement and a separate priority to be shut down in said profile (Column 9, lines 7-11, lines 19-34, lines 50-62; Column 14, lines 16-41: activities of application corresponds to modules. Activities are preempted or shutdown based on its priority value. Resource amount for each activity is also recorded in profile.) for the purpose of preempting less important activities.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Werme with wherein each of said plurality of modules is assigned a separate resource size requirement and a separate priority to be shut down in said profile, as taught by Sankaranarayan, because it allows less important activities to be preempted.

Werme in view of Sankaranarayan does not specifically teach that the message may be in XML format.

However, Ozzie teaches using XML for message passing between endpoints for the purpose of facilitating communications (Column 2, lines 30-40; Column 20, lines 10-35).

It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the teachings of Werme in view of Sankaranarayan with

Art Unit: 2195

the specifics of using XML, as taught by Ozzie, because it allows the facilitation of communications.

6. As per claim 5, Werme teaches responsive to a determination that said application can continue to operate without said first module, determining by said grid management system whether a next module from among said plurality of modules should be identified to be shutdown if said performance status does not meet said operational requirement after shutting down said at least one first-module (Column 21, lines 40-50: it is inherent that scaling down may be performed multiple times which corresponds to shutting down multiple modules.).

Werme does not specifically teach responsive to determining there is not said at least one other resource node that meets said operational requirements specified in said profile, determining by said grid management system whether said application can continue to operate without said at least one module; responsive to a determination that said application cannot continue to operate without said first module, returning by said grid management system an error message for said application to a particular client system requesting said application from among said plurality of client systems.

However, it would have been obvious to one having ordinary skill in the art at the time to send an error message to notify the client when application cannot operate since this is a commonly practiced procedure in the art of error notification.



7. As per claim 6, Werme teaches wherein said at least one resource node operates on at least one platform for which said operational requirement is specified (Column 5, lines 33-50, lines 65-67).

8. As per claim 11, Werme teaches wherein said application is one from an stand-alone application (Column 5, lines 45-55).

### ***Response to Arguments***

9. Applicant's arguments regarding to claims 1, 5, 6, 11 have been fully considered, but they are moot in view of the new ground of rejection.

### ***Conclusion***

10. Applicants' amendments necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2195

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-272-6946. The examiner can normally be reached on Monday Through Friday, 10:00 - 8:00 EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached at 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Meng-Ai An/

Supervisory Patent Examiner, Art Unit 2195